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MARCH, 1974

# The Ohio University

STUDENT MAGAZINE





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ALUMNUS MAGAZINE

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## *The Ohio University Alumnus Magazine*

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# CLOCKS

One of the most striking things about the home of Dr. Harry Hultgren, associate professor of classical languages at Ohio University, is his clock collection. He has clocks on the mantelpiece, clocks on tables, clocks in the hallway and clocks upstairs.

One is tempted to look for a correlation between the timelessness of the classical languages and the timeliness of clocks to explain Dr. Hultgren's passion for each, but it just doesn't work. Dr. Hultgren, himself, cannot make a connection, other than that his interest in each stems from his early teens. About the time he discovered in junior high school that he excelled in Latin he also started his clock-tinkering on an old shelf clock of his grandfather's.

There was a time when the sounding of the hours was prerequisite to a timepiece's being called a "clock"—which Dr. Hultgren points out comes from the Latin word for bell, *clocca*. For the purposes of this article, however, clock will mean any timepiece with mechanical works. Clocks are based on a principle that sounds deceptively simple. If one joins a device that performs regular movements at equal intervals of time to a counting mechanism to record the number of such movements, one has made a clock.

Though today's clocks tick and whirr and chime, the earliest timekeeping devices were silent as shadows. Indeed, they used shadows as part of their operation. A sundial, for example, has a dial upon which the sun casts the shadow of an object called a gnomon to indicate time. For year-round accuracy, a sundial must be designed and constructed for the latitude—the distance on the earth's surface north or south of the equator, measured in degrees—of the place for which it is made. Many fields of knowledge must be called upon in the construction of a sundial. The maker must know something of astronomy, geometry, art, architecture and mathematics. Just as a further complication, the Princes Street Gardens in Edinburgh have a sundial made almost entirely of flowers, which requires some knowledge of gardening, too. But even benefiting from all these specialties, the sundial is capable of only indicating time, not measuring it. Furthermore, it can be used only during daylight and a dark, rainy day renders it useless.

There were other time-measuring methods which eliminated the problem of timekeeping after dark. The waterclock, or *clypsedra* (which Dr. Hultgren says means "water thief" in Greek) worked on the basic principle of filling or emptying a vessel of water at a controlled speed. It functioned steadily, day or night, as long as someone remembered to refill the reservoir at the appropriate time. Candles with hours marked on them and oil burning in a marked glass vessel were other time-indicating means.



PHOTOS BY HARRY SNAVELY

Dr. Harry Hultgren takes time out to tinker with his clocks.

The hourglass, or *clypsammia* (Greek for “sand thief,” according to Dr. Hultgren), originated in Europe in the 14th century. It employs two glass globes fastened together in such a manner that a predetermined amount of sand placed in one of them will flow through into the other in a specified period of time. During the Renaissance hourglasses were refined to the point that they were made in four-glass sets to indicate a quarter of an hour, half an hour, three-quarters of an hour and an hour respectively. Further refinement has resulted in the familiar three-minute egg timer. Unfortunately, even the improved accuracy of the hourglass did not eliminate the necessity of turning it every hour or so. Otherwise, one would literally run out of time.

The basis for modern timekeeping was set in 1582 when Galileo noticed the swaying of a chandelier suspended from the ceiling of the cathedral of Pisa. He used his pulse to time the swings and found that the period of each seemed the same, despite the length of arc through which the chandelier (or pendulum) swung. Later, this same principle, in reverse, was used by physicians who timed their patients’ pulses with a simple pendulum called a *pulsilogium*.

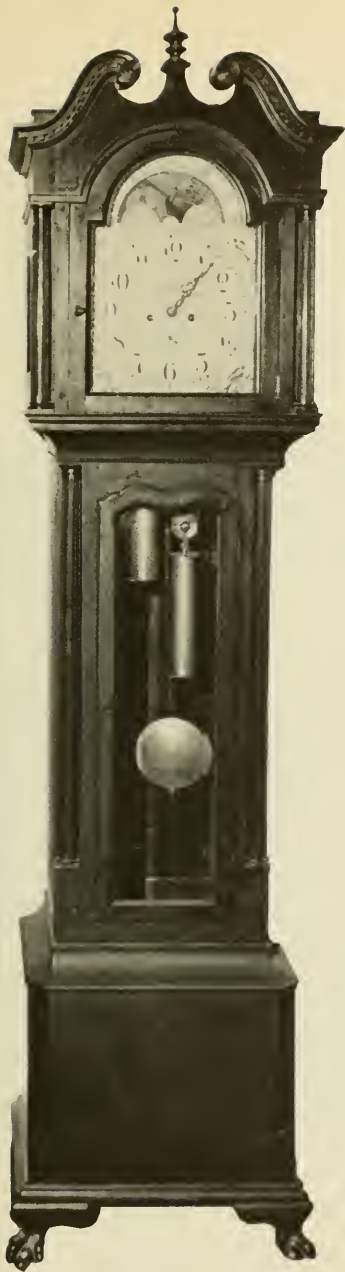
Not until the 17th century, when a Dutchman named Christiaan Huygens invented the pendulum-controlled clock, was accurate timekeeping possible. Dr. Hultgren explained that the importance of the pendulum to the working of a clock is that a pendulum of a certain length will swing in equal periods of time, depending upon its length. Though a pendulum of any length can be accurately used, 39.14 inches, the length almost always used in tall-case (the so-called “grandfather’s”) clocks, is the only one with a one-second period. That means that the 39.14-inch pendulum will swing its full arc, from right to left, or vice versa, in one second.

In theory, once a pendulum starts swinging it will continue to do so indefinitely. In fact, it does not. Friction, both at the suspension point and from air resistance, will slow and eventually stop the pendulum unless some form of compensation is made. There are two standard forms of motive power for mechanical clocks—a falling weight or a coiled spring. Though it might seem so, the height of a tall-case clock, according to Dr. Hultgren, has nothing to do with the length of the pendulum; it is demanded by the distance needed for the fall of the weights.

The weight is the cheaper and more dependable motivation for a stationary clock and is the system used in the popular cuckoo clock. However, any mechanism using the fall of a weight to turn gears and wheels needs something to regulate the escape of power caused by the pull of gravity on the weight. Such regulation is really a series of interruptions in the fall of the weight. Dr. Hultgren gives “escapement” as the name for this mechanical part. The most basic system used is known as a verge escapement—foliot, verge and crown wheel. Crown wheels are circular sections of tubing which have been cut into saw teeth, thereby visually resembling a crown. Pallets, or stoppers, arranged on a vertical shaft which turns alternately to the right and to the left, permit the crown wheel to move a bit, then stop it, then permit it to move. The shaft carrying the pallets is swung by a bar known as the foliot which is fixed to the top of the pallet shaft, with weights on its ends. To start the clock, one gives this bar a push. It swings right or left, permitting one pallet to disengage the crown wheel, until the other pallet engages a tooth of the crown wheel, creating







This tall-case clock once stood in the Athens home of General Grosvenor.

the impulse to swing back the other way. The clock runs until the weight reaches the end of its chain.

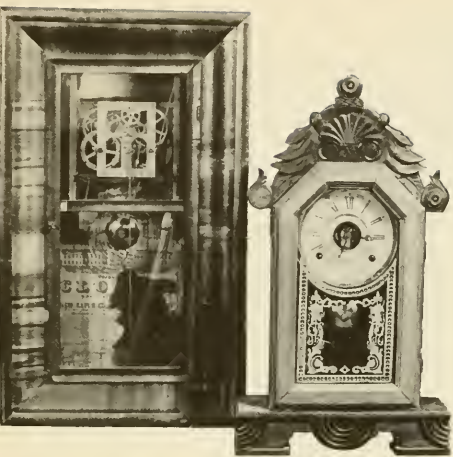
The earliest pendulums in clocks were seriously affected by friction, with a consequent decrease in accuracy. In 1715 an Englishman named George Graham developed a clock in which the pendulum received the impulse from the foliot near the center of the swing. As a result the pendulum was subject to only minimal friction for the rest of the swing, and clocks could be manufactured which were accurate to a few seconds a day. Prior to this deadbeat escapement, as it is known, clocks which were only off by a quarter of an hour a day were considered fine timepieces.

From the second half of the 15th century another mode of power for clocks was the spring. Spring-driven clocks were more portable than the weight-driven ones, but the pull, or torque, was not constant. The tighter the spring was wound, the greater was the drive. When the spring was nearly unwound the clock would slow, losing as much as half an hour a day. Eventually this difficulty was overcome by use of what is known as a fusee. The fusee is a conical, spirally grooved pulley from which a cord or chain unwinds onto a barrel containing the spring. The increasing diameter of the pulley compensates for the lessening power of the spring.

Dr. Hultgren points out that whether weight- or spring-driven, the major virtue of pendulums in measuring time is that the period of the swing depends only on the length of the rod. It is almost independent of the extent of the arc; but it is sensitive to temperature changes. As has been stated, a pendulum of 39.14 inches will beat at one-second intervals. But an increase of as little as .001 inch will make the clock lose about one second per day. Rises in temperature will cause the pendulum to lengthen; decreases will cause it to contract. Though today's pendulum rods are made of a combination of two metals—one of which contracts when cold and expands when warm, and one of which does just the opposite—to counteract temperature changes, clocks are still affected. The nationwide energy crisis which prompted Americans to lower their thermostat settings probably brought on a wave of clock adjustment.

More than temperature will affect the works of some old clocks. Shortly after clockmaking came to America a man named Eli Terry, in Connecticut, established a method whereby his company could mass produce pendulum clocks with wooden works. These were far less expensive than metal-work clocks, but were subject to dampness. Clock parts must be tooled to very close tolerances and when the wooden works absorbed moisture they would swell. But because Terry could produce such clocks at a very low price, they were very popular, making Terry's name almost synonymous with clocks. Wooden-work clocks did not bear up well under the strain of time and are now extremely rare.

A name in clocks which is perhaps better known today is that of Seth Thomas. Thomas was a protege of Terry and eventually bought out Terry's factory in Plymouth Hollow, Connecticut. Thomas' clockworks so thoroughly dominated the economy of Plymouth Hollow that the town's name eventually was changed to Thomaston, Connecticut. Before that happened, however, there was manufactured a clock which is Dr. Hultgren's pride and joy. It is a Seth Thomas brass-works, weight-fall clock which was made during Thomas' lifetime, about 1845. When Dr. Hultgren found the clock in an antique shop in Columbus he felt it was one of the proverbial Cinderella stories. The clock was not



operative and the shop owner probably did not realize what a gem he had. Dr. Hultgren, himself, was not certain, at first. After he brought home the clock and cleaned it up a bit he found the hoped-for proof of its authenticity. Stamped into the brass of one of the major gears is the name of Seth Thomas, Plymouth Hollow, Connecticut, and the date.

Getting the clock to run was a challenge and a labor of love. In working on the clocks Dr. Hultgren uses standard jeweller's tools, but he has also found an old U.S. Navy Medical Ordinance surgical kit invaluable. The kit contains very delicate forceps, scalpels and probes, but most important of all are the hemostatic clamps. These clamps, in several sizes, are so constructed that they remain clamped after one lets go of them. This feature allows Dr. Hultgren to clamp together two parts and then have both hands free to glue, screw or do whatever else is necessary.

Most clocks made by Eli Terry and Seth Thomas were either of the shelf or bracket variety or were of a sort that came to be called a "wag-on-the-wall." This name was earned by the motion of the exposed pendulum when the clock was hung on a peg on the wall. With short pendulums the period of swing was quite brief, causing a rapid wagging to and fro of the bob. Whether for esthetic reasons, for protection from dust or just as a whim, wall clocks and shelf clocks were occasionally encased in cabinets tall enough to house the weights on their chain and the pendulum. This clock style called for a marriage, sometimes disastrous, of two major crafts—clockmaking and cabinetmaking.

Some of the cases were massive, reaching heights of ten or 12 feet. Dr. Hultgren has in his home a tall-case clock, dating from about 1795, which is seven feet tall. It is what is now commonly called a "grandfather's" clock, a term which originated in 1875 when an American songwriter, Henry C. Work, produced the song of that name. The appeal of the tall-case clocks coupled with Work's genius for echoing the sound of them made the song so popular that over 800,000 copies of the sheet music were sold. The new name was applied almost instantly to the clocks and today most people are unaware of any other name for the tall-case clocks.

Following Work's success another songwriter came up with "My Grandmother's Clock" but even extensive promotion could not save it from being a failure. In clock nomenclature, however, the term "grandmother's clock" is sometimes used to designate a tall-case clock 40-50 inches high.

Whatever their height, tall-case clocks are awkward to move and transporting them usually knocks them out of adjustment. In moving such clocks one should detach the pendulum to prevent its erratic swinging from wrenching the verge and foliot out of position. When the clock is in position, the pendulum must be replaced, the case must be leveled and adjustment must be made to the train and gears. Dr. Hultgren occasionally is called upon by a local furniture dealer to adjust modern tall-case clocks which have been delivered to new owners.

But, with a true collector's drive, Dr. Hultgren cannot be satisfied with this association with clocks. Even the three weight-driven and seven spring-driven clocks he owns constitute merely a foundation for a future collection. For one thing, all the clocks he owns have metal works and at times he is well aware of the truth in the old Pennsylvania Dutch adage, "A clock with brass works ticks loudest just before a storm." It is Dr. Hultgren's ambition to own one of Eli Terry's wooden-works clocks. ♪

# WOMEN'S INTER- COLLEGIATE ATHLETICS

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PHOTOS BY DEBBIE MCDANIEL



Wendy Weeden is the second Ohio University woman to make the Women's National Reserve Field Hockey Team.

In the athletic circles of Ohio University WICA is an acronym not so familiar as MAC (Mid-American Conference) but it is one that has brought its share of national recognition to the University. In December, 1973, Barbara Berry, director of WICA (Women's Intercollegiate Athletics), called to say, "I just wanted to let you know we have a national champion here." Pride sounded in her voice as she said that Wendy Weeden, a senior from Hudson, Ohio, had been named to the position of reserve right halfback on the U.S. Women's Field Hockey Team. Wendy was selected at the National Field Hockey Tournament in Boston, which is the final event of a series of stiff elimination tournaments held to determine the nation's best 22 players. Another Ohio WICA player, Anita Corl, won similar honors in 1972.

The athletic ideal for which Barbara Berry strives in the WICA program is typified in Ms. Weeden—a healthy, attractive, intelligent, well-rounded individual. She is an outstanding sportswoman and in addition to field hockey she plays lacrosse and officiates at college games and tournaments. She gives the lie to two stereotypes. Common prejudice often classifies female athletes as great, hulking people who can scarcely be distinguished from the men on the football team. Such a description does not fit Wendy, who has a very busy and satisfying social life.

The second stereotype which Ms. Weeden dispels is that of the dumb athlete. She is a member of Mortar Board, a senior women's honorary organization which requires a minimum grade-point average of 3.0. Ms. Weeden has an accumulative grade average of well above 3.0 in her fourth year at Ohio.

According to Ms. Berry, athletes have to be more intelligent or more dedicated or both than other students. Ohio University requires that each full-time student carry a minimum of 15 credit hours of courses each quarter and athletes are no exception. Practice time (the women practice two hours per day) must be sacrificed from their free time. An attempt is made to schedule games around classtime, but occasionally travel to out-of-town games means players will have to miss class. In such cases, classroom work must be made up on the athletes' own time.

In the past the WICA program has had to fight an uphill battle, against social pressure, lack of facilities and inadequate funding. Ohio University, however, is not an isolated instance of inequity in the funding of men's and women's intercollegiate programs. The November 19, 1973, issue of *The Chronicle of Higher Education* carried an article on a Congressional hearing on the Women's Educational Equity Act of 1973. The bill deals with a much wider scope than just sports, but one of the principal witnesses at the hearing, tennis star Billie Jean King, made a few







comments worth noting. Since there is wide-spread agreement that sports provide necessary and valuable training in self-discipline and the striving for excellence, Ms. King asked, "Why is it that such benefits are only extended to 49 percent of the population? Why is it that women's sports programs in the public schools receive only about one percent of what men's programs receive?"

At Ohio University the imbalance is beginning to right itself. With the appointment in September, 1973, of Barbara Berry, the program was drawn together under the care of a full-time director. Prior to Ms. Berry's appointment one of the coaches had to run the program in addition to her other duties. Catherine Brown did a remarkable job in view of the need to organize the program, function as a lacrosse coach and fulfill her duties as a teacher in the School of Health, Physical Education and Recreation; and she was only allowed 24 hours a day in which to do it all. Barbara Berry does not have any more hours in her day, but she does have fewer hats to wear. As a consequence she is able to bring to WICA a steady, positive aggressiveness which is paying dividends.

Rather than having to travel to away games in private cars as had been the case, the women's athletic teams now have use of the University's athletic department's cars, or the funds to rent cars when there is a conflict with the men's needs. Regular service of the athletic trainers is provided for practices and the games, both at home and away. Medical examinations and insurance coverage are now available for the women through the combined efforts of Barbara Berry and William Rohr, director of the men's intercollegiate athletics.

Publicity for women's sports is also on the upswing. Ms. Berry has contacted members of the news media to have her athletes' activities covered. Contact with the editors of *The (Athens) Messenger* and *The Post*, Ohio University's student newspaper, has resulted in coverage on the sports page of each paper. News releases are sent out about both men's and women's events by the University's sports information director. Two articles appeared in *The (Cleveland) Plain Dealer* covering Ohio University as a participant in the State Hockey Tournament at Baldwin Wallace. On April 4 WOUB-TV's "Lock, Stock and Barrel" program will feature the Ohio University Women's Intercollegiate Athletic program at 7:30 p.m.

Barbara Berry is carrying her campaign for recognition of women's athletics into the budgetary arena. In the past, in a rib-from-Adam's-side approach, the University expected the men's program to relinquish part of its budget to fund the women's program. Ms. Berry is determined to make people aware of the value of women's athletics to the University and its students. She is beginning to realize some success. Athletic scholarships for women may become a reality in the near future at Ohio University and there is some hope the budget may improve.

But despite the austerity under which the women's sports program has had to labor, there is a strong feeling of camaraderie among its athletes. Women compete in a total of nine sports (field hockey, golf, lacrosse, track and field, swimming, basketball, tennis, softball and volleyball) on an intercollegiate basis; and team spirit is strong. The prevailing sentiment was aptly expressed by Wendy Weeden when she was featured in the Coed-of-the-Month column of *Coach and Athlete* magazine. She was quoted as saying, "You can acquire a strong feeling of unity playing on a team and I've felt that at Ohio University. I'll miss it when I graduate." 🐾

PLB



Promotional picture for  
the Margalit Oved Dance  
Concert.



Richard F. Stevens came to Ohio University as director of public occasions in 1971. He graduated from Goodman Memorial Theater in Chicago with a BFA and earned his MFA from the Carnegie Institute of Technology (now Carnegie-Mellon) in Pittsburgh. He has worked as an actor and a director in Pittsburgh, Chicago and Hollywood and spent seven years with the Department of the Army as a civilian director of entertainment. Most of his time with the Army was spent in the United States and Europe, with one volunteer year in Vietnam. Following his return to the States Stevens worked as director-manager of a community theater in Indiana.

His years with the Army imbued Stevens with a love for travel which he indulges whenever possible. However, when it proves impossible to coordinate his schedule with those of his wife and three children, he is content to remain quietly in Athens, pursuing his hobbies of reading, writing, golf and tennis.

## Cultural Activities

by Richard F. Stevens

Not too many years ago, the concept of a cultural event in this country brought to mind elegant ladies and gentlemen, bejewelled and dressed in the latest of evening fashion, alighting from hansom cabs before a resplendent hall, to be entertained by the great artists of music, dance and theater. These events occurred only in major cities, primarily New York, Boston, Philadelphia and San Francisco, and were the highlights of the social season. To the vast multitude spread across the country, the great halls and artists were another world, separated from theirs by space and social status.

But there were many small, relatively unknown, vaudeville-type shows touring in those days and gradually many of the better-known artists began to recognize the prospects of the largely untapped audience of middle and western America. The Seven Foys, who toured the gold and railroad camps, were only one example of these touring artists who "went West." Later, other great artists, such as James O'Neill in *The Count of Monte Cristo*, toured the small towns across the country.

From there, if you will excuse a prodigious leap in history, we began to realize that the strains of a symphony orchestra and the magic of dance and theater could be heard and seen outside the great cities. The artists who recognized the potentially vast audience also generated a realization in the smaller cities and towns that fine entertainment was available and important to the communities'

*Godspell played to a capacity audience when it came to Athens.*



social and economic growth. The performance hall became an important part of the construction plans for many cities and towns across the nation. It became the center for touring attractions and remained the center for the local area for many years. Gradually, the need for more entertainment of the live-stage variety prompted many areas to begin fostering their own cultural organizations. The nucleus of symphony orchestras and community theaters began to take shape across the country and the audience for these enterprising groups, as well as the known touring groups, began to increase.

The growth was slow and still has a long way to go before achieving the ultimate rapport between artist and audience. Gradually, the growth of cultural interest and the potential of touring artists began to prompt colleges and universities into realizing the potential the artists possessed for education outside the classroom. Thus began the cycle of educational institutions programming the touring artist, as well as the use of their own schools of music, dance and theater. Today, almost 70 percent of the touring artists are programmed by colleges and universities across the country. Over 300 such institutions, as members of the Association of College and University Concert Managers, spend over \$5,000,000 a year for the touring artist.

The role of the University in cultural programming is to fill the need for our community to see, hear and understand the talent of great artists, and for these artists to have audiences with which they can establish rapport. It has taken many years for artists and audiences to arrive at their present state of mutual gratification. Even now, the financial reward to artists is minimal, for our progress in recognizing that outstanding art must be, in part, subsidized in order to reach new audiences has been laggard and still is incomplete. It has not been many years since governments recognized that wealthy patrons should not bear the burden of great artists for their own pleasure, but that nations should sponsor the enlightenment and enjoyment of the public.

Our government has created the National Endowment for the Arts which pours millions of dollars each year into assisting dance companies, orchestras, theaters and art galleries across the land for performance and exhibit to an ever-increasing audience. Through their own efforts; through subsidies, grants and foundations, and with the aid of the federal government, the role of colleges and universities has become a major one in the programming of the arts for campuses and their surrounding communities.

Here in Athens, the present Ohio University Artist Series began with the Community Concerts Program and the Athens Chamber Music Society. These two groups merged and became known as the Convocation Committee in 1959. As in its present-day structure, the committee was composed of University and community citizens. The first artist series programs under the auspices of the Convocation Committee were separated into three series in 1959-60 consisting of: The University Artist Series with artists Byron Janis, Nathan Melstein, Marion Anderson and the Lamaureaux Orchestra of Paris. The University Chamber Music Series featured the Joseph Eger Players, the Netherlands String Quartet, Trio Di Bolzano and the Quartetto Di Roma. The Guest Convocation Series brought to campus Hal Holbrook, Robert Frost, Ralph Bunche and Ernest Von Dohnanyi. In the 1960-61 season, the committee was joined by the Men's Union Governing

Board, the Women's League and the Center Program Board in presenting The Ximenez-Vargos Spanish Ballet troupe and dance became an important addition to the overall series. A cultural program that combined the efforts of interested community and University citizens was on its way.

The program has endured and matured in its presentation of great orchestras, artists and exhibits such as the Cleveland Symphony which first performed in Athens in 1964 and again in 1966 and 1968. Other early offerings were the Detroit Symphony in 1963, the Vienna Symphony in 1967 and such chamber groups as the Julliard Quartet, Quartetto Di Roma, Netherlands String Quartet and the Paganini String Quartet. The world of great names in theater, dance and music has also included Robert Shaw, Rise Stevens, Murray Louis Dance Company, The Alvin Nicholais Dance Company, *The Man of La Mancha*, *Zorba* and *A Man for All Seasons*. The list of artists through the years is impressive and encouraging—impressive through the talents and artistry, and encouraging because the series has survived and audience interest has increased.

There have also been many changes and trends in our artist series. More foreign companies, with a wider variety of ethnic performances, are available. The concept of the residency program has increased and has allowed thousands of students an opportunity to study with the artists on a one-to-one basis. Most early residency programs have been in the area of dance and include such companies as The Alvin Nicholais Dance Company, Merce Cunningham, Martha Graham Dance Company, James Cunningham and the recent Twyla Tharp Dance Foundation. The need for similar programs in music and theater has been recognized and such programs are gradually increasing in number. The truly educational aspects of cultural programming will eventually be manifested in the residence concept of artists spending several days on campus in lectures and master classes that build toward the culmination of how and why in the concert. In the master classes, usually held in the School of Dance studio, students get a limited opportunity for study with the master or leader of the dance company in residency. The master goes through some of the techniques and routines of his or her method in dance with the University students both learning and performing.

In 1959-60, the Artist Series season ticket cost \$6, the Chamber Music Series \$5 and the Convocation Series \$10, for a total of \$21 for all programs. Students were admitted free with I.D. cards. No single admissions were available. Students paid for admission to dance and theater programs not included in the series. Today, the Ohio University Artist Series offers one complete series of music, dance and theater. A full- or half-series ticket can be purchased by anyone, or single-admission tickets can be selected.

The committee, now called the Cultural Activities Committee but still composed of students, staff, faculty and townspeople, selects the program within the budget limitations, pending the availability of the artists. The Office of Public Occasions acts as adviser, treasurer and administrator of the programs, handling the box office, promotion, booking, technical set-up and the duties of host.

There have been both humorous and frustrating moments. All of the selection process—the arguments, negotiations, booking, receiving the artists, loading, unloading, technical set-up, printing of programs, balancing the budget—has rung with moments of tears, joy, humor and frustration. One night a Japanese orchestra



Wayne Adams, BFA '52, is producer and director of THE ALIVE COMPANY production of *Jacques Brel Is Alive & Well & Living in Paris*.





In its Ohio premiere performance, on Ohio University's campus, the London Bach Society was conducted by Paul Steinmetz.

arrived for a performance, only to learn the truck carrying their instruments was lost. The truck finally arrived, ten minutes after the audience had apologetically been sent away. No concert. Another frustrating episode involved an orchestra which went on strike shortly before their scheduled performance in Athens. One week's advance notice seemed hardly adequate, but luckily another symphony was found which was available on the date in question, and an emergency contract was negotiated. Another time, a scheduled dance company lost its grant and had to cancel. A replacement was found but that company decided the distance was too great and cancelled also. Finally, with fingers crossed, we booked a third company. It fulfilled its contract and was a success.

This year's season opened with Richard Kiley in *Cervantes*, followed by the Ohio premiere performance of the London Bach Society. The Westwood Wind Quintet came next and, in turn, violinist Itzhak Perlman, the Margolit Oved Dance Company, the Twyla Tharp Dance Foundation, *Godspell*, The Cincinnati Symphony, The Philidor Trio and The Canadian Opera Company. Following the publication date of this article, The Beaux Arts Trio will appear on April 3, *Jacques Brel Is Alive & Well & Living in Paris* on April 17 and, ending the season on May 17, the Hartford Ballet.

The 1974-75 season will bring what we feel is a highly diversified and exciting program of artists from around the world. Opening on October 9 will be *Frula*, a Yugoslavian Folk Dance company, followed by *Heembaba*, a Far East Asian company on October 23 and the famed Leipzig Gewandhaus Symphony on November 2. The Royal Shakespeare Company will appear on November 15, followed by I Solisti Zagreb on November 20. The City Center Acting Company on January 9 will open the winter quarter and will be followed by pianist Loren Hollander on January 15 and Israel Chamber Orchestra on February 11. Spring quarter will begin with The Inner City Dance Company on April 4 followed by what is a modest departure from the norm with the Preservation Hall Jazz Band of New Orleans on April 10 and the legendary Noh-Kyogen Theatre of Japan on April 22. The final offering will be the Viola Farber Dance Company on May 2.

As a special attraction and tribute to our own Ohio University Symphony Orchestra, we will present the symphony on the series program with guest cellist Laurence Foster in concert on March 5.

In addition to all the performing artists on the Ohio University Artist Series is the other side of our cultural programming—the visual arts. Each year, money is budgeted for the purchase and showing of works in painting, photography, sculpture and other visual arts in the galleries of the College of Fine Arts. The 1972-73 season consisted of "Fifty Prints by Fifty Printmakers" in fall quarter, the 19th Century Rojasthani Temple Hangings in winter quarter and The Realist Revival, a contemporary painting exhibition, in spring quarter. Only one gallery exhibit was selected for the 1973-74 season. "The Art of the Comic Strip," from "Little Nemo" and "Krazy Kat" to "Peanuts," was a collection of 106 original drawings and proof sheets from the Smithsonian Institution. There will be other exhibits in winter and spring quarters of 1974 and dates will be announced. The exhibits are free to everyone while single admission tickets are available to all University Artist Series presentations. Visitors to Athens or the campus are more than welcome to attend. It would be an excellent opportunity for alumni, for instance, to experience firsthand the cultural opportunities offered to today's students. 🐾



# Nature's Way in Athens

Two natural food establishments, The Farmacy (a grocery) and The Arc (a restaurant) have taken their respective places amidst the bars, boutiques and pizza places of downtown Athens. The interest in organic or natural foods has come to Athens, quietly and without fanfare. Present and former University students and faculty are involved in the operation of both businesses; they are vitally concerned with the problems of proper nutrition in terms of diet. Their interests, however, transcend diet, and lead them into an involvement with the economy and ecology of the Athens area as well.

The term organic originally applied specifically to the bio-dynamic method of farming, i.e., a technique that nourishes the soil with decaying matter such as leaves, old hay or manure rather than chemical fertilizer, and also avoids the use of chemical pesticides. Organic food, then, has come to apply to produce, grains, and even livestock that has been raised by the organic method.

## *Origins in a Previous Generation*

The term organic was coined by the late J. I. Rodale in the early 1940s when he founded *Organic Gardening and Farming* magazine. The magazine's purpose was to gather and present the results of legitimate experiments in bio-dynamic agriculture. Such experiments, he was aware, were being conducted around the world, but their results did not appear in one place at one time.

Rodale considered Sir Albert Howard the father of the organic method. (Howard's work is described in the book *An Agricultural Testament*, published by Oxford University Press.) Howard concluded that insects and fungi are not usually the real causes of plant disease but only attack weak or unsuitable varieties. The true role of supposed pests, Howard said, is that of censors. Howard's experiments included the raising of livestock as well as crops; his well-fed oxen were immune to hoof and mouth disease even after rubbing noses with diseased animals.

Later, Rodale founded *Prevention* magazine, in which he collated medical research as he did agricultural. The magazine proposed to compensate for the de-emphasis of preventive medicine and nutrition in our medical schools. Many illnesses can be prevented or treated by alterations in diet and nutritional supplements, and again, Rodale wanted to collect and present the responsible research carried on around the world. Ironically, veterinarians have a much greater awareness of preventive medicine than doctors; the former have been forced to deal with problems caused by soil deficiency and the removal of nutrients in the processing of animal feeds.

## *Appearances Are Not Deceiving*

The tone of both The Farmacy and The Arc is low-keyed. The Farmacy bears no resemblance to the "health food store" image — what people in the organic movement sometimes refer to as "pill shops" — with shelf after shelf gleaming with expensive vitamins, large signs proclaiming discounts and doomsday salesmen pushing expensive machines that make juice

out of grass. Barry Wolfe, proprietor of The Farmacy, does sell a few vitamins, but they are not conspicuously displayed. Most of his stock consists of various grains, nuts, herbal teas and unbleached flour, and customers can serve themselves from the bins and milkcans used as containers.

The Arc is a spacious restaurant where customers order at a counter in the rear, cafeteria style, from the day's menu written on a blackboard, and carry their own trays to the widely spaced chairs and tables. The Arc also sells fresh homebaked rolls and bread daily. The restaurant's format lends itself well to various cultural activities. On Saturday nights there are concerts by local performers, on Sunday nights there are open poetry readings and local artists display their paintings on the walls.

### *Poisonous or Useless Foods*

Barry Wolfe, and Jim Campbell, of the HAMSA\* community that runs The Arc, have strong common interests and common gripes. They agree that the average American diet runs from deficient to poisonous. In fact, The White House Conference on Food, Nutrition and Health declared in its Final Report that "hunger and poverty exist on a disgraceful scale in the U.S."† The report makes further reference to the astonishing amount of malnutrition found among middle and upper middle classes.

Heading the list of dangerous foods is refined sugar. Wolfe likened sugar in the body to sand in the movement of a watch. Hardship to body organs may not be easy to document, but the facts are that diabetes is on the rise, as is hypoglycemia (a condition in which there is too little sugar in the blood); both diseases are rising as the consumption of refined sugar increases. In both diseases, the functioning of the pancreas is impaired by the increased amount of sugar in the blood. The danger posed by refined sugar has been further highlighted by medical studies in England which attribute dandruff and dermatitis to sugar use (because sugar causes a deficiency of B vitamins necessary for its digestion), and studies in Japan which relate myopia in children to high sugar intake.

Bleached flour, while not as dangerous as refined sugar, is not nutritional. Flour is bleached to prolong shelf life. The bleaching process rids the flour of its vitamins and the flour must be enriched. But the vitamins put back in do not replace the total nutritive content that has been lost.

In fact, most foods found in supermarkets and groceries are convenience foods loaded with additives to keep them on the shelves. Loaves of commercial white bread, in addition to being made with bleached flour (some local companies have been recently switching to unbleached) and preservatives to keep them on the shelves, are pumped with air to give them a heftier appearance. American cheese is only about 25% cheese and is also aerated. The average all-meat hot dog is 54% water, 30% fat and 11% protein. The sodium nitrate and sodium nitrite additives are both carcinogens (cancer causing), and sodium nitrite is particularly dangerous because it can combine with hemoglobin to form methemoglobin, which cannot carry oxygen — the blood's ability to carry oxygen is therefore reduced.‡

\*A Sanskrit word meaning gander, which signifies the creative principle.

†*White House Conference on Food, Nutrition and Health, Final Report*, U.S. Government Printing Office, Washington, D.C., 1970, p. 17.

‡Revealed in testimony before the Senate Select Committee on Nutrition, September 2, 1972.

Students study as well as dine in the spacious Arc restaurant.



According to Sidney Margolius in *Health Foods — Facts and Fakes*, the average individual consumes about five pounds of additives yearly. Exactly how much of this contamination is removed by the body and how much isn't is not known. In addition, many of the thousands of chemicals added to foods to preserve, thicken, thin, blanch, etc., are allergy causing.

Commercially raised meat and poultry are suspect nutritionally. Twenty western countries, including Sweden, Denmark, Ireland, and the common market countries have banned U.S. raised beef (USDA inspected) on the grounds that DES, the growth hormone used in the feedlots, has induced cancer in laboratory animals. Antibiotics and amphetamines are also added to feedlot feeds to speed growth. These chemicals remain in the meat and are passed on to man. But it's important to realize that bio-dynamically raised livestock are bigger, stronger and healthier. Veterinarians have become aware of this, because they have realized that soil depletion passes nutritional deficiencies on to livestock, and then to man. The use of chemical fertilizers offsets the balance of flora and fauna, rearranging intestinal bacteria and fungi in cattle, allowing the unchecked growth of a common mold that produces a cancer-causing toxin. The offset balance is passed on to man along with the toxins. Veterinarians are coming to realize that the chemical way, which they have followed most of their careers, is causing more problems than it's solving. The fact that gross farm production hasn't increased since the 1940s, while the use of fertilizers has at least tripled, indicates that something is wrong.

The problem of organic rather than chemical fertilizer always raises the question: will an ear of corn grown with organic fertilizer look better or taste better than an ear of corn grown with chemical fertilizer? And while the answer is a qualified no, it's important to realize that the degrees of soil deficiency dangerous to animal and to human health often do not produce recognizable symptoms in the plant. This was pointed out in *Health from the Ground Up*, written by Karl B. Mickey, published by International Harvester in 1946.

One way to avoid the problem of eating contaminated or deficient meat is to quit eating meat altogether. Frances Moore Lappe in *Diet for a Small Planet* points out that the world population could be much more efficiently fed on high protein grains (such as soy beans in combination with other grains). Such beans and grains are used in the high-protein feeds used in large western feedlots. Lappe points out that there is a large protein loss per acre between the grain and the meat, that is, the consumer gets far less edible protein than the land is capable of producing.

Some of the facts on the integrated poultry industry were finally made public on an ABC television special shortly before Christmas, 1973. Major points made on the special were that arsenic, present in the feeds supplied to growers by the feed companies (who control the entire operation) and which is supposed to be removed in the final feedings, is not removed in four out of five cases, and companies hamper the work of USDA inspectors by limiting the time of their inspection to three seconds in which they are to check for ten diseases, by putting on the conveyors excess grease which gets smeared on the chickens, and by threatening the lives of inspectors and their families who report violations. Exactly how much unfit poultry finds its way into the stores is not known. Barry Wolfe says he's been telling people such things for years and no one has listened.



Barry Wolfe, proprietor of the Farmacy, fills an order.



## *The Harm Out of Pharmacy*

Barry Wolfe, proprietor of The Farmacy, who was raised in Athens, is a former student of the University and has taught a course in the healing effects of natural foods called Earth Medicines — Earth Foods. The name Farmacy is to signify eating and being well, and is a pun on the idea of a pharmacy and pill dependence. "I wanted to take the harm out of pharmacy," he said. The Farmacy's stock is not geared for impulse buying but for a well-balanced diet. Wolfe has tried everything he stocks and enjoys an inventive natural cooking experience at home. Many of Wolfe's customers are one-item buyers, having become fanatic about yogurt or granola.

When asked why honey is considered by some to be a miracle food, Wolfe explained that honey absorbs moisture that bacteria thrive on, and therefore bacteria won't grow on it if it is left exposed. Honey has been digested by bees and is therefore easier on the human system but Wolfe advises moderation, explaining that overdoses will shock the system as refined sugar does.

A big problem for Wolfe is that organic food prices tend to be higher, keeping potential shoppers away. Organic farmers often lose a lot of their crop, Wolfe explained, for pesticides will drive an undue share of bugs to their fields. Even so, the higher prices provide a better buy for the money. Wolfe explained that lower prices on packaged foods are no bargain when one realizes that he is paying, for example, mostly for sugar water and corn syrup. Wolfe has done his own informal surveys in supermarkets and has found the shopping carts stocked primarily with white bread and soft drinks, and hardly any real food such as vegetables. Despite the higher prices, Wolfe maintains that people who eat organically have lower food bills.

In addition to running the Farmacy, Wolfe is helping sponsor a local organic gardening project. He is presently trying to get the University to lease some unused land off West State Street for gardening projects. Local people could sign up for plots. Such projects have been under way throughout the country, one notably in Hershey, Pa., where the Hershey Company leased land between its oil storage tanks for a nominal fee.

## *The Arc and the Economy*

The Arc restaurant, in the former Nixon reelection headquarters next to the bus terminal, is a group venture rather than a personal one, designed to support the HAMSA community based near Stewart, Ohio. Jim Campbell, of the group, explained that members decided on a cooperative venture rather than going out for separate jobs, which might have created too many individual differences. Though a general store was for sale in Stewart, the members wanted to relate to the Athens community, in which they were already involved through the University, rather than remain in isolation. The restaurant resulted from a composite food philosophy which was not far from the personal ideas of each of the individuals. All the members have been struggling out of the plastic-food culture, and some have been undergoing transitional steps, such as eating carob ice cream rather than the synthetic commercial product; Harriet Moore is a gourmet cook who now translates her great skill into the organic dishes which are the restaurant's main fare.

Campbell sees the present interest in organic food as being indirectly related to the Depression, when sugar treats,



PHOTO BY ROBERT FOX







The rolling hills of the region are unsuitable for the large-scale growing of corn and grain. Sedge grass in the foreground is an indication of poor soil.

packaged foods and meat became the biggest indicators of success. The Depression led to a quest for leisure time which was satisfied by quick, prepared foods. Although there was resistance at first to packaged foods, television has pushed people to the point where they are blindly protective of the system. As a result, real nutritional problems are ignored. Due to hardship and sacrifice, Campbell explains, members of the Depression-World War II generations tended to transfer emotions onto material things. Such people are usually unable to admit fear or anxiety as a motivation (which would conflict with their sense of identity) and as a result have a fraudulent basis for their goals.

Campbell feels it is the children of the 30s and 40s generations who are primarily involved in the organic food movement. Their interest is partially the result of education (which their parents didn't have the leisure to afford): an education where critical analysis is the basis of decision making, motivated by the necessity of conviction. Misleading advertising cannot be effective on such a group, which is capable of researching and documenting its positions.

Campbell is hoping that the HAMSA community may affect the economy of the area by providing a market for organically grown goods. He feels that though various institutions are inflexible, the economy itself is open. For example, an existing restaurant may refuse to add an organic dish or two to its menu, but a restaurant like The Arc can go into business and create its own market. Campbell is hoping that the group, in addition to providing a market, might also serve as a distributor for organic produce going in and out of the area. This might encourage farmers to grow organic cash crops, such as beets or carrots, on the rolling hills which are unsuited for corn and grains.

### *Continuing Motivation*

Although there is an element of rebellion in the organic food movement, to characterize it as such is a convenient way of avoiding responsible analysis. According to author Margolius, two forces that continue to motivate the movement are: the failure of the medical profession in the areas of preventive medicine and nutrition; and the fact that people no longer trust the government to police the food industry. In some respects the movement represents a return to the old ways of eating and farming, the era before technology affected peoples' growing and eating habits, when people were much more in tune with the raising of their food, and consequently, with what they ate.

Although Barry Wolfe has managed to keep The Farmacy alive he remains pessimistic. He maintains that the organic movement hasn't really touched Ohio in comparison to other states. He has been constantly in contact with his congressman, various government agencies and the local newspaper, but feels his message hasn't been heeded. "Most people are apathetic," he says. "They care nothing about the world they're living in nor the world their children will inherit." The end result of such apathy, as predicted by the authors of *Limits to Growth* is a return to the middle ages by the year 2050.


The presence of The Arc and The Farmacy is itself an encouraging sign of local interest. In addition to operating their businesses, the owners have made definite commitments to improving the economy and ecology of the Athens area.  RRF



PHOTO BY ROBERT WINTERS



BRUCE A. MCELFRISH



ROBERT WINTERS

Green





ROBERT WINTERS

# Parks



BRUCE A. MCELFRISH

The Ohio state parks rang with a new sound during the summer of 1973. Through the cooperation of the Ohio University School of Theater, the Ohio Valley Summer Theater, Inc., and the Ohio Department of Natural Resources, the Green Parks Company was formed to carry a program of folk music to the state campgrounds.

The company, made up of University students and area residents, arrived in the designated state park about mid-afternoon and drifted in small groups through the campground, singing, talking to campers and inviting them to the evening performance. Just as dusk began to fall the program got underway. As full dark set in prelaid bonfires were lit for illumination.

The performances followed a simple pattern. The company sang a collection of folk songs, using only enough electrical amplification to be heard over the crickets and owls. The songs, from the Ohio-Kentucky-West Virginia area from the period between the War of 1812 and World War I, are from a simpler time than ours. The Green Parks Company wanted to keep the sound as authentic as possible. The audience was encouraged to sing along and the familiarity of the old songs made the invitation irresistible.

Square dancing followed the singing. After one set, the dancers demonstrated the steps and went out among the audience to invite people to join them. No one was forced, but the spirit was so contagious that people found themselves whirling through a do-si-do and an allemande-left without a second thought.

Impressed by the cultural and educational aspects of the Green Parks program, Ohio Republican representative Clarence Miller arranged with the National Parks Service for the group to go to Washington, D.C. In October they performed in Lafayette Park, across from the White House, to a crowd of about 2,000. The next day they drew a crowd of over 1,000 in DuPont Circle.

The charm of the Green Parks idea lies in its authenticity. The music was created by the original singers and dancers to answer needs within themselves. It speaks to the human condition in each member of the audience, cutting across racial, age, cultural, financial and interest lines.

The Green Parks Company will tour the Ohio state parks again in 1974. They are also happy to perform for alumni or other groups. To invite them, contact Robert Winters, School of Theater, 097 R-TVC Building, Ohio University, Athens, Ohio 45701. *PLB*





## SOCCER'S PENDULUM MAN

When the ancient Greeks created their ideal of a "sound mind in a sound body," they could have had little knowledge that 2,000 years later it was going to be fulfilled in Athens, Ohio. Dr. Gianni Spera (PhD in Romance languages and literature from Catholic University) who took on the coaching of the Ohio University soccer team for the 1973 season on a voluntary basis, is also a full-time teacher of Italian in the University's modern language department and author of three scholarly books.

The ancient Greeks, who laid down the mathematical and philosophical bases of western civilization, are also thought to have originated the game of soccer. The Greeks had a game called *harpaston* which meant "to hurl forward." Some kind of ball was used, advanced by any means possible, across lines at opposite ends of a town. The Romans changed the name to *harpastum* and made it into a sport for the training of warriors. It became very popular with the Romans, who limited the passing of the ball to kicking or striking with the hand. The Romans brought the game to England where it was known as mob football, with no limit to the number of players on each side. In England the game became more popular than archery with soldiers, which caused it to be banned by English monarchs from Edward II through Queen Elizabeth I. The name soccer, which probably comes from the players' wearing long socks, is commonly used in this country to distinguish association football from American football.

Spera himself is as interesting as the background of the game. He played semi-professionally in Tosca, southern Italy, and though he never coached or managed, was a kind of playing coach or captain of his team. Recently, though, soccer had been only a hobby for him and he never would have dreamed of coaching when he came to teach at Ohio University.

Spera spent a long time observing the team before coming to his decision. The biggest problem he faced was that the famous Ohio University soccer team no longer existed. Only three of the original players remained, the other eight having left the University—four of these eight were All-American. Spera made it clear that he was not taking on a good team, but that it was possible to shape something from the raw potential, which included using five



freshmen in the travelling team. When he took over, his objectives were to create a team spirit (which didn't exist), rebuild the team around the three veterans, and find and develop the best in each of the inexperienced players, as there was no time for thorough training in the fundamentals.

Whatever misgivings the players might have had about being coached by a scholar didn't materialize when they learned Spera was working without a salary. His sacrifice served as a motivation as well as a model for the players who have to pay their own food and gas for exhibition games on the road.

In response to the team's needs and abilities, Spera created a new position and a new strategy. The biggest problem was a weak midfield. The absence left by the departure of All-American Andy Smiles had to be filled. Spera's first idea was to have a player covering a 70-yard linear territory that stretched from the fullback to the opposition's front line. The player chosen was an excellent ballhandler who didn't have the endurance for such long runs; he needed two or three minutes to recuperate, which could be costly in a game. And the weakness in midfield still remained. The solution came to Spera at home one day when he checked the time on an old clock—a fortuitous moment that resulted in the creation of the “pendulum man.” The new position enabled the chosen player to cover an arc in midfield, ranging from left to right, depending upon the play. For example, on a right-side attack, an extra man was added forming a triangle with the right wing and right halfback. Depending upon the attack, the right, center or left halfback would be able to cover the central field. The strategy was never discovered by the opposition. Rival teams were baffled to see a player moving from left to right rather than down the length of the field; they never could predict where he was going to appear. They were confused further because the pendulum man was not announced as such. The lineup listed him as a forward, but he would be used more as a back.

With such an effective strategy, how could the team lose? The first defeat came on the road, on artificial turf and in artificial light, conditions to which the team was unaccustomed. Three players, one of which was pendulum Kavous Behzadi, went into the game with injuries. But the realcrippler was the Homecoming Day game to be played on the road at Ashland. Due to a breakdown in communication the correct time for the game was not established and the game was not played. As a result, the team did not play for ten days, and then had to face four games in the ten days that followed. In addition, seven of the last eight games were to be played on the road.

The 6-4-1 record under Spera doesn't tell you that the six wins were shutouts. The Mid-American Conference coaches chose Sherman Lyle, Eric Winders and Kim Bayless as all-stars for the first team. Making the All-Ohio first team were Lyle and Winders; Lyle was chosen for the All-Midwest second team; Sherman Lyle received an All-America honorable mention. In addition, Eric Winders was a first draft choice by the Baltimore Comets and was the only player selected from All-Ohio, though the Comets have since invited Lyle to the team as well.

The president of the Ohio referee association added further praise to the team in telling Spera he had never seen such gentlemen on the field. When they lost they did so with dignity, always without blame.

Spera helped preserve unity by discussing personal problems in open meetings. The openness resulted in mutual respect between





players and the coach. He expected them to give their best and they did. He continues to praise the players' enthusiasm and love for the sport which are in the best tradition.

It's natural to wonder if Spera's commitment to the soccer team detracted from his teaching and research. To the contrary, Spera maintains that the three hours a day away from academic routine regenerated him for academic work. He cut down on his sleep and completely omitted any social activities. Adding to the emotional rewards, his wife Clare (a scholar and a soccer fan) said that for the first time in the eight years they've been married, he'd come home at the end of the day with a smile.


Spera's attitude and approach to teaching are similar to his coaching. He sees his role as helping shape the spirit and character of young people for the future. Teaching is not a popularity contest but an important responsibility. As in coaching, his aim is to extract the best. It is important, he feels, to analyze students' needs and deal with them individually, from day-to-day. He views grading not as an abstract finality but as a means of evaluating needs. In the process of improving communicating skills, through the teaching of Italian, one's spiritual qualities are improved as well. Spera says he is paid not to teach, but to be a good teacher in the highest way.

Research forms a complementary and ideal relationship with his teaching as does coaching. As a scholar, Spera has recently coauthored with Professor Domenico Prampolini a critical commentary of the novel *Ultime lettere di Jacopo Artis*. He has also written critical commentaries to Dante's *Inferno* and *Purgatorio*, and is completing one on *Paradiso* to be published in 1974. The books on Dante are also coauthored by Professor Prampolini. Presently, Spera is collaborating with his wife Clare on translations of the modern Italian playwright, Ugo Betti. He was awarded the exclusive translation rights; only seven or eight out of 25 Betti plays have so far been translated into English. He plans to follow up the translations with a critical book on Betti, also in collaboration with his wife. Spera is perhaps America's foremost expert on Betti, having chaired discussion groups and panels on the playwright at regional and annual meetings of the Modern Language Association.

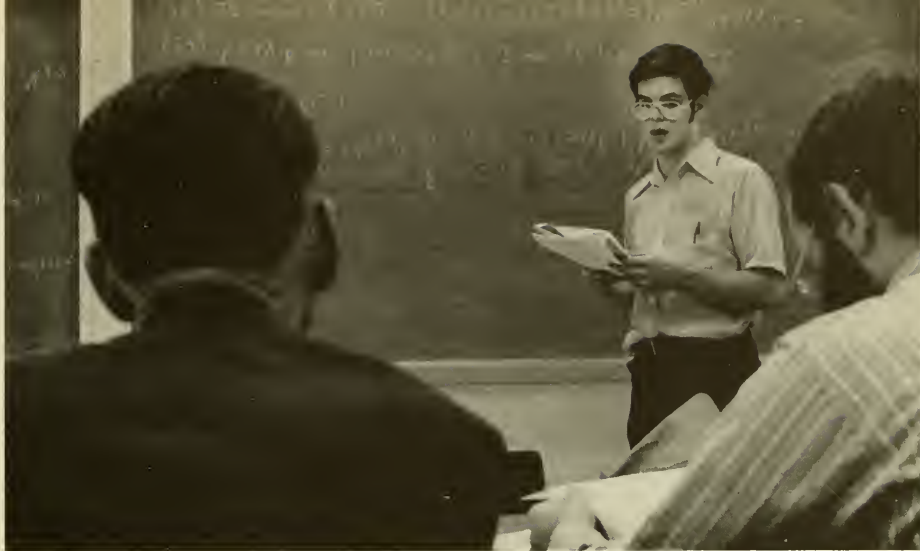
Spera is very happy at Ohio University where he has been able to achieve an ideal harmony of academic work and athletics. He likes the community and the personal relationships, as well as the exchange of ideas. He also feels the University has a great many possibilities for it has an administration that is open to dialogue.

Gianni Spera is a man unique in his energy and dedication. He does not attempt anything that does not get a full commitment, and it is amazing that one man has the capacity to focus the energy he does into coaching, teaching and research. He is a man who does not conceal his emotions or his thoughts; he can be as explosive in the classroom as he can be on the soccer field, and he is open to change as well, always welcoming constructive criticism.

Gianni Spera comes as close as anyone possibly could to realizing the Greek ideal. It's a tribute as well to the University's modern language department and department of intercollegiate athletics for letting Spera realize that ideal—it is a relationship for which he could not possibly be more grateful.

The soccer team's spring exhibition season in April and May will include games at Cedarville, Denison, and Wittenberg and in Athens the team will play the Arab League and the Alumni at the end of May. 

RRF



Mike Conrad, 17, conducts seminars explaining his numbers theories to math professors. It is estimated that he will receive his PhD in three years.

## Tutorial Isn't Remedial

Now that the faddish interest in experimental education has run its course, there is little public discussion of ways to humanize the humanistic college education. Few people on campus, let alone off campus, are aware of Ohio University's latest experimental endeavor, the Honors Tutorial College — a separate degree-granting program within the University.

Educational theory dating back to Plato cites individual discovery as the basis of learning. Such discovery can best take place in a continuing personal relationship between the student and his teacher, for it is such personal contact that has the longest lasting influence on a student's education. One is more likely to keep knowledge gained through such contact than from a lecture.

The Honors Tutorial College provides continuous contact between student and instructor, particularly in such areas as math, science and history, where such a relationship is virtually unobtainable on the lower levels. Under the general supervision of Ellery Golos, who is the director of the program as well as associate professor of mathematics, and Peggy Cohn, who is part-time assistant director, an entering freshman is assigned a director of studies in the area in which he wishes to specialize. The director of studies then assigns a faculty tutor for the year, quarter, or whatever period of time study in that particular area might require.

Students register for one to 15 credit hours of tutorials, and are advised by their directors of

studies to take conventional courses at the same time. Such courses can be audited, formally or informally, if not taken for credit, but like the British system, Ohio's program permits students to sit in on any lecture they wish to attend. There is no specific hour requirement for the degree (which is a "tagged" bachelor's — e.g., history, physics, etc.) but the student must pass annual comprehensive exams in his particular department, and the other courses he takes or audits are to help prepare for the comprehensives. At present, students are specializing in botany, marine biology, chemistry, history, pre-law, government, physics, chemistry and English.

The Honors Tutorial College is a highly supervised and structured program rather than a freewheeling series of independent study projects. The student's choice lies in selecting his specialty; from then on the choices are made in connection with faculty. The director of studies and the student design the individual program. The student has a weekly meeting with his tutor (the tutorial) in a casual setting. However, the subject of the tutorial is determined by the tutor, and their hour-long discussion is based upon a paper written by the student. Such papers require many hours of research. The tutorial, then, is intensive, with three weeks of tutorials being roughly equivalent to a quarter's worth of work. By the end of the first quarter, students will use original source material rather than texts, and so the program will be providing much more





intensive training in specialized areas, with, of course, the freedom to take other courses.

The tutorial program is an extremely practical one, but is limited to those of proven ability and maturity—each student must have already demonstrated a serious interest in the field he wants to pursue. The first two years of college, usually wasted in megasections of unrelated courses, are done away with, immersing individuals in their specialties. It's a great responsibility but will enable students to get into graduate work more quickly. In our specialized age, a student wastes peak energy years garnering the basic information of a particular field. The Honors Tutorial College hopes to get professionals into their fields while they are young enough to make a creative contribution. Both Einstein and Newton did their most important work while in their twenties.

There are presently 35 students in the program and they have an average SAT score of 1320, the highest individual score being 1570. (Average SATs for students are usually 900.) All were in the top ten percent of their high school graduating classes, most were in the top five percent. Many of them have chosen Ohio University over prestige schools, one turning down a four-year scholarship to Purdue, and others turning down offers by MIT, Northwestern and the University of Rochester. Thirteen members of the present group were National Merit finalists, while there were only six finalists on the entire campus last year. Next year the University will offer ten scholarships to National Merit finalists. At present none are offered, though some members of the group have received awards from private corporations that are part of the National Merit Program.


The Honors Tutorial College provides a unique living experience as well as an educational one. The students live together on two floors of South Green 1 (Fenzel House). Their common situation encourages dorm living, and they feel they would not move off campus once they have met the 90-hour requirement (which is a difficult one for them to meet in the program, since some of them may graduate while still classified by the University as sophomores or juniors). But the modular arrangement of the dormitory provides minimal noise, the opportunity for privacy and the convenience of group study. In the few months the program has been in existence (since fall 1973) the students have become close to one another and consider themselves like brothers and sisters. They share their personal as well as scholastic problems. No two students have identical programs though some may have the same tutors. Someone is always

available to talk to, and sometimes the group will have informal discussions lasting up to eight hours, covering everything from religion to politics, facilitating a great cultural exchange. One girl from an Ohio farm community said she previously never had any exposure to Jewish people or Jewish culture. And, calculus parties have become a regular occurrence two to three times a week, when students help each other through their calculus problems.

When asked if they would rather be a small unit within a large university as they are, or have an independent college all to themselves, the students overwhelmingly replied they would rather be part of the larger unit. What small college would be able to afford and maintain such facilities as an accelerator laboratory or computer center?

Faculty members of the tutorial programs are presently serving voluntarily, without pay, in addition to their teaching loads and research work. They enjoy the closeness with good students and welcome the stimulus and challenge, which make teaching a learning experience. The opportunity for such intense work is also an incentive in attracting good faculty.

The students are excited about the Honors Tutorial College and the realism with which it treats their needs. The absence of regular exams and the ominous presence of the comprehensives puts them under much greater pressure than the average student experiences, but at the same time, they enjoy the responsibility. The Honors Tutorial College hopes to expand to 100 students next year and there are dreams of its being endowed. The students find themselves in a financial squeeze felt by many in the middle-class—the income of their parents, which looks good on paper and denies them financial aid, is insufficient in the metropolitan or suburban areas of their origins, particularly when there are brothers and sisters in college. Next year, however, incoming freshmen will be assisted by the Ohio University Achievement Scholarship Program, which will provide \$390 yearly for Ohio residents, and \$600 for out-of-state students. These scholarships are four-year awards.

The importance of programs like the Honors Tutorial College cannot be overstated at a time when young people with suitable talents and abilities avoid college as a de-humanizing or impractical experience, and life on many campuses is shadowed by apathy and, wide-spread drug use. It's encouraging to find such an enthusiastic group of young people as the Honors Tutorial College students, who are so vitally concerned about their own and each other's academic and personal destinies.  RRF



Mary Stahl, children's librarian, reads a story to a class from one of the local elementary schools.



# The Children's Library

It is a little known fact that Ohio University has a children's library, open to all Athens city and Athens County residents. Tradition has it that the library originated through the efforts of General Grosvenor, an historical figure in the annals of Athens, and his friend, the philanthropist Andrew Carnegie. Grosvenor prevailed upon Carnegie to make a substantial contribution to the University for its library, which then adopted Carnegie's name. One of the stipulations of the Carnegie endowment supposedly was that a portion of the funds be used to establish a children's collection as a permanent part of the University library. This collection was to serve not only the University students but also all children in Athens County. Neither the Children's Library nor the University Archives has much documentation of the Carnegie gift and Mary Stahl, the children's librarian, would be pleased to hear from anyone who can provide further information.





It may not be known to a majority of the University students and many of the faculty may be unaware that it exists, but the Children's Library is well-known and well-loved by a sizeable segment of the Athens area population. In order by number of users, the groups which avail themselves of the library are Athens County children (offspring of faculty, students, townspeople and county residents), College of Education students, faculty and staff and other University students.

The routine of the Children's Library includes regularly scheduled visits from area elementary schools and local day care centers. The teachers contact Ms. Stahl early in the fall to make appointments and then at the appointed time each week a class troops in to return previously borrowed books and to select new ones. The loan policy of the library permits an individual to borrow books for a two-week period. Some high-demand books must be restricted to one-week loans and still have a tendency, according to Ms. Stahl, "to disintegrate before your very eyes". Picture books, in particular, get heavy use, as do some specific-interest books. For example, a book of riddles, a favorite of the middle-school crowd, has been thumbed through so many times that the edges of the pages have crumbled away and holes are worn in what is left. All the skills of book repair are put to rigorous test on these well-loved volumes, but eventually there is not enough left to patch and a new copy is ordered. Ms. Stahl is pleased to note that the wear and tear on the books is from fervent use and not a result of deliberate destruction.

Stories are read to the school groups from the lower grades. The older children either hear a story or a book-talk from Ms. Stahl or a member of her staff of one nonprofessional librarian and three student assistants. Following the story or talk the children are free to select books from the open stacks to borrow.

At least one visiting group has an arrangement whereby the children help with the hustle and bustle of checking out books. The third and fourth grade group from St. Paul's Elementary School, fascinated with the date stamper, wanted to stamp the due date in their own books. When the hassle got to be too much, Ms. Stahl instituted a library-assistant's-assistant policy through which a particular child each week helps behind the circulation desk. It has become such a popular activity that a roster must be kept to assure a turn for each child. Ms. Stahl and her staff agree that the practice gives the children a feeling of identification with and responsibility for the library.

In addition to the formal visitations by the school classes, children are encouraged to use the library on their own. After-school hours and Saturdays see a steady stream of youthful bibliophiles through the library. Displays of books on tables, brightly colored book jackets on bulletin boards and the enthusiasm of other children play a big part in the children's choice of books.

Standing somewhat taller than most of the library users are the elementary-education majors from the College of Education. Classes in children's literature must read a collection of books which were chosen to portray specific aspects of children's literature. Each year three sought-after awards are made in the world of children's literature. The Caldecott Award goes to the illustrator of the most distinguished picture book published in the preceding year. The

Newbery Award goes to the author of the book which has made the greatest contribution to children's literature during the preceding year. The most recent, the Mildred L. Batchelder Award, is an international recognition given to an American publisher for the most outstanding juvenile book originally published abroad in another language. All Caldecott winners must be read by the children's literature classes and selected examples of the Newbery winners must be read. At present the Batchelder winners are not on the required list, but they are selected, along with other books, by student teachers to be used in their classes. The children's librarian and her staff are a valuable aid to these future teachers, helping them to utilize their limited time to gain the greatest benefit for the student teachers *and* their pupils.

University students in interpersonal communication and theater use the Children's Library, too. The interpersonal communication assignments often require students to present short stories or poems or both before their classes. Such an assignment will bring students to the Children's Library in search of material suitable for oral recitation. Ms. Stahl is able to help them with a



Marjorie Talbot, full-time nonprofessional librarian, supervises as children check out their own books.







Sometimes the only way to make the painful choice between two books is to ask the teacher.



minimum of delay. She appears to be acquainted with every volume in her library, and is able to put her hand on useful material almost as soon as she is asked.

Theater students have learned that the clear and informative illustrations in children's reference books are quite helpful in costume and scenery research. The students also are able to find short plays, stories and poems which can be presented in the multitude of exercises which go into the forming of a competent, professional actor.

Many faculty and staff members have also learned the value of the children's collection. The children's reference books are the ideal starting place in a search for information on a new topic. The how-to books can be the basis of exploration into a new craft or project. Even for an experienced cook the children's cookbooks can furnish new, tasty and very helpful recipes and information. An advantage of children's cookbooks over those for adults is that recipes for junior chefs almost invariably picture the finished product and very often illustrate intermediate steps, as well.


The clear illustrations are certainly one of the best aspects of children's books in aiding adults. For example, the Office of University Publications recently did a brochure on which a drawing of a dogsled was used. The Children's Library supplied several volumes about Eskimos, Alaska and the Far North which showed the necessary detail of the sled, dog harnesses and hook-up and the parkas of the drivers.



Among the books in the Children's Library collection are several by authors closely connected with Ohio University. Carol Kendall, an Ohio University alumna and wife of the late Paul Kendall, long-time Distinguished Professor of English at Ohio University, has several superlative children's books. Copies of *The Gammage Cup*, *The Whisper of Glocken* and *The Big Splash* are in the library, along with *What It Feels Like to Be a Building* by Forrest Wilson, professor and director of the School of Architecture. Hollis Summers, well-known poet and Distinguished Professor of English at the University, is represented by two of his books, *Someone Else* and *The Walks Around Athens*. The University's Creative Writing Department has two members with books in the Children's Library. James Norman Schmidt, writing under the name James Norman, has written *The Navy that Crossed Mountains* for children in addition to his adult novels and books on travel in Mexico. *The Adventures of Little White Possum* by Donald Wayne was actually written by Wayne Dodd, better known in the adult world for his books of poetry.

During the present academic year Wayne Dodd has begun teaching a course on children's literature within the English Department. In dealing with the philosophical and esthetic elements of children's literature the students read examples of classic and contemporary children's literature. An attempt is made to determine the criteria of what is considered great children's literature. For such a course the Children's Library is an invaluable aid. The students buy the specific books which are selected as textbooks for the course, but the research possibilities of the children's collection are limitless.

In the College of Education an undergraduate course deals with criteria for selecting children's literature and the preparation of materials to be used in a literature program. Children's reading interests are examined and the students in the class read outstanding literature for children. On the graduate level a course is offered which goes into the critical analysis of research and theory related to children's literature. Students from both these classes spend many hours in the Children's Library.

With the books by University-affiliated authors as a nucleus, Mary Stahl has begun to develop a collection of children's literature about Ohio or by southeastern Ohio authors. Her original idea was to include all authors of appropriate books who are residents of Ohio, but investigation revealed that there are entirely too many Ohio-based authors. The financial and spatial requirements simply could not be met. The idea remained to acquire suitable children's books which are set in Ohio. The list of authors was curtailed to include only those in or from the 19 southeastern Ohio counties of Athens, Belmont, Fairfield, Gallia, Hocking, Jackson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pickaway, Pike, Ross, Scioto, Vinton and Washington. This particular section of the state has traditionally been looked down upon by the rest of Ohio and Ms. Stahl hopes the specialized collection can help impart to the young residents of the area a sense of worthiness. Some people have expressed interest in furthering this project and anyone who is interested could make restricted gifts financially through The Ohio University Fund, Inc.  PLB



# RESEARCH:

A Part of the University Community

by John Ray

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Dr. Thomas E. Wagner, left, and graduate fellow Dexter Moore.



"This is John Ray" is a very familiar phrase to the listeners of the University's WOUB-AM and WOUB-FM radio stations. Ray, a senior producer at the stations, regularly creates an in-house producer's digest. It is a series of consumer features which inform listeners about common problems and their solutions. Ray receives an average of five inches of mail a week, containing questions, suggested solutions and possibilities for future material. A typical week also will bring 70 or 80 incoming telephone calls and see Ray make at least that many outgoing calls.

Ray's background before coming to Ohio University in 1965 was in heavy industry and in consumer selling. His broadcasting experience started during his undergraduate career at Marshall University in Huntington, West Virginia. He has worked in television, as well, but he prefers the spontaneity of radio.

Ray is dedicated to consumer and public service. In his office an autographed photo of Neil Armstrong thanks him for long hours worked on the American Cancer Drive. Mrs. Ray and their three children can testify that he has spent further hours working through such groups as SERTOMA.



PHOTOS BY HARRY SNAVELY

I talk on a daily basis with a lot of people who live and work outside the University community and they often ask questions about higher education and what is happening on campus. In response to the many questions about the role of research at the University I produced a radio program involving five research-oriented individuals. The program was broadcast in Cleveland and shorter features were produced and broadcast on Ohio University's radio stations, WOUB-AM and WOUB-FM.

As a direct result of these broadcasts one research project actually received an unsolicited monetary gift from a public-service group. But obviously more public information needs to be made available, not only through radio and television, newspapers, magazines and direct mail, but also through the direct personal contact of members of the University community with their fellow Ohio citizens. If all the universities in Ohio could make this effort, there

would be fewer questions and less confusion. The general public could acquire a better understanding and a clearer, more up-to-date image of how all parts of a university come together to create a true institution of higher education.

One of the best ways to be up-to-date is to talk with a university-affiliated researcher, one who is involved in the expansion of knowledge in his field. Most of us are aware of the need for research in the area of health and cancer is one of the primary targets. Dr. Thomas E. Wagner, assistant professor of chemistry at Ohio University, is involved in cancer research. He has received assistance from a number of groups including a \$35,000 grant from the American Cancer Society, one of the few Ohio nonmedical school research grants issued. Dr. Wagner explains that a basic problem is to discover what happens to a cell when it changes from normal to cancerous. Such changes can be caused, perhaps, by viruses, by chemicals in cigarette smoke, by chemicals in pollutants or a number of other causes. Dr. Wagner feels that cures will have to be as numerous as the causes. His research team is interested in looking at the beginnings of the carcinogenic cell.

It is almost impossible to differentiate between a cancer cell and a very primitive normal one in the early stage of a developing egg. For the first several weeks after the egg cell is fertilized, it simply divides and grows without having any specific function. This growth is controlled by a very small portion of the genetic message. Dr. Wagner explains that one can look at the chromosome or DNA of a fertilized cell as if it were a huge book containing all of the biological information for the creature that will eventually come from that cell. In the beginning, all but the first few paragraphs of the book are covered. Only the first part of the message is available for expression. This is the genetic state when the cell grows and multiplies without a specific function. Later, according to Dr. Wagner, the initial message is covered and other parts open up for expression so that a cell becomes a part of the eye pigment or some other part of the body. Each cell contains all the information, but only a certain part is expressed so that each cell performs its intended function as part of the whole.

Dr. Wagner feels that cancer is the unexplained reopening of that initial message which was closed following the very early stages of the cell's development. That message tells the cell to forget about being a liver cell or an eye-pigment cell or a heart cell and tells it to grow and multiply at a great rate of speed and just become

nondescript. Cancer is the proliferation of nondescript cells. The Wagner research team is interested in finding out how that genetic information gets turned on and off, and how they can control the expression of the genetic information in the chromosome. The grant that Dr. Wagner received from the American Cancer Society is being used to study this. The research effort has isolated some proteins that interact with DNA to trigger certain parts of the genetic message and there are other proteins that can turn off the message. Dr. Wagner and his associates use very sophisticated equipment to obtain a three-dimensional view of the DNA of a cell and observe its reactions to a controlled stimulus.

Ohio University's involvement in cancer research might result in a contribution to the eventual solution of the cancer problem. Such a solution would be welcomed by all mankind, but how does this research tie in with the University and its goals? Dr. Wagner feels that the University has a number of functions, one being to teach; but he also feels that there is an equally important function to create ideas. The idea, he emphasizes, is to teach students in the environment of a creative production of new ideas. According to Dr. Wagner, a university is neither just a bigger high school nor just a research institute. It is a blend of the two. It is the idea of involving the learning student directly in the process of advancing the knowledge of man.

Cancer is a topic that is both current and well-publicized. Another such topic is that of environmental protection, the solution of which may suffer a setback with the advent of the energy shortage. Southeastern Ohio is involved in both of these problems since strip mining is a major environmental problem for the area. Dr. Moid U. Ahmad, associate professor of geology, is deeply concerned about mining in southeastern Ohio because he has seen the damage from the largest perspective—satellite pictures. Dr. Ahmad explains that strip mining is an enormous operation in southeastern Ohio with over 250,000 acres already stripped. Strip-ping has created a serious water pollution problem and this is what attracted Dr. Ahmad's interest. Most strip-mined land contains pyrite which oxidizes, producing an acid that ends up in the streams. The Muskingum and Hocking rivers are polluted with acid, affecting directly the health of the area, the people and the land.

When Dr. Ahmad began his survey of several heavily strip-mined areas, he concentrated on one near Youngstown, Ohio, where acid water drains into the Meander Reservoir and must be treated before it is drinkable. A





Dr. Moid U. Ahmad, left, with a geology class.

number of other surveys have been started and are still underway. Students are conducting research in such areas as Sunday and Monday creeks in southeastern Ohio.

In addition to the ground-survey teams, Dr. Ahmad uses satellite pictures of the region that covers 100 square miles. Dr. Ahmad points out that with these pictures one has a good view of what we have done to our land. The research team has been able to correlate the satellite pictures with the actual ground conditions. They have been studying the area around the Piedmont Lake where a lot of stripping has occurred. They have identified the areas which have been reclaimed and they can see the results of areas that have not been reclaimed. They have studied in great detail the area around New Lexington,

Ohio, which indicates reclaimed as well as unreclaimed areas. Dr. Ahmad points out that although the pictures are taken from tremendous heights, the detail is very good and is the same as if the picture were taken from only 18,000 feet. He explains that this is a very powerful tool to map the strip mines of southeastern Ohio and is the first step that must be taken in order to reclaim the land. Dr. Ahmad feels that "Once we know the land and what state the land is in, then we can prepare the plans for its reclamation. This is very, very valuable land which must be put into productive use and this is the first step to that end."

The value of this type of research to the southeastern Ohio community, of which Ohio University is part, is obvious. I asked Dr. Ahmad



about the value of this research to students who were included in the projects. He replied, "I think that they are the type of students that the consulting firms, the Environmental Protection Agency and the other organizations are looking for. People who are well-trained in these new techniques can obtain jobs with these organizations much easier and this is an off-shoot of this kind of research."

From the use of satellites we come down toward earth several thousands of feet but still remain airborne, to join the Avionics Engineering Center at Ohio University. It is the only school in the country with this kind of avionics research in progress. This engineering center brings in more outside funding than any other type of research conducted at Ohio University. Dr. Richard H. McFarland, professor of electrical engineering, explains that scientific research is one of the best-publicized types of research and has indeed provided mankind with many benefits. "Some people will even point out that the failures are attributed to the engineers and the successes to the scientist," says Dr. McFarland. "However, we like to take the approach that we have taken science and applied it to the benefit of society." He points out that the Avionics Engineering Center takes scientific principles and applies them to the benefit and improvement of air safety. He hopes that, as a result of their work, people will fly and travel through the skies safer than ever before. "It is the application of the scientific principle to the task of solving the problem that is the job of the engineer," he says.

Southeastern Ohio may seem like a strange place to have an Avionics Engineering Center. It is here because of the interest of people like Dr. McFarland in the particular problems they are investigating. Research on a university campus depends to a great extent on the specialized interests of the faculty. As projects become known, interested students are attracted to the university by the research.

Dr. McFarland, in explaining one problem, said that scientific principles are involved in the electromagnetic theory. The theory must be fully understood to solve a problem in monitoring air-navigation systems. Air-navigation systems make use of special radio signals transmitted



Dr. Richard H. McFarland

to aircraft. It is important for the engineer to be able to sample these radio waves so he can insure that the pilot receiving them will have the correct information. According to Dr. McFarland, it can sometimes be difficult to obtain a representative sample of the information-carrying signal. It is, however, very important that the engineer know precisely the type and value of information received by the aircraft.

The information developed by this engineering group can make flying safer and may directly affect the ability of aircraft to fly in bad weather to places like hilly southeastern Ohio. I asked Dr. McFarland what he felt were the values of his research activities to students at Ohio University. He stated that often the academic community is accused of producing students who are out of touch with reality, students who have been trained in theory but who have not seen the real world. He said that one of the objectives of these research programs is to allow students to serve as interns, to become thoroughly familiar with the interworkings of an engineering project. Then they can better understand the problems that one faces in working in engineering—things that often are not covered in the textbook.

After looking at the wide-open spaces of 100-square-mile photographs and southeastern Ohio from an aircraft, a laboratory room might seem a little confining, but a lot of interesting activity is taking place within the walls of Ohio University. Dr. C. Robert Almli, assistant professor of psychology, works with animals. He is currently working with rats, gerbils and guinea pigs. One of his research projects centers on the nervous systems of animals and the location of the neural-substrate of thirst.

Dogs, cats and even people get thirsty, but did you ever stop to wonder why? Dr. Almli wanted to know why and what the physiological changes are when one gets thirsty. His research team found that thirst was, in lay terms, consistently associated with a concentration change in the blood. Basically, their research discovered that an increase in the concentration of the blood of roughly two to three percent will cause a rat to start drinking water. Another researcher applied this research to humans and found that the human being experiences an unequivocal urge to drink following a two-and-one-half-percent increase in the concentration of the body fluids—exactly in the middle of the two to three percent change Dr. Almli found in laboratory rats.

The importance of this research might be clarified by some of his research of hemor-



Dr. C. Robert Almli

rhaging. He explored the question of why one becomes thirsty when bleeding or hemorrhaging. His research team found that following hemorrhaging in rats the concentration of the remaining body fluid increases. Dr. Almlí explains that after car crashes or other accidents many individuals lose a large amount of blood. In the past, most replenishing of the lost blood was accomplished by administering whole blood or plasma. Unfortunately this process does not decrease the concentration of the body fluid. The injured individual becomes thirsty and as a result may drink too much water. The transfusion has reestablished the normal volume of body fluids but, because the concentration is high, the person drinks water. The drinking could then result in expanded vascular volume leading to hypertension, water intoxication, convulsions or merely an uncomfortable patient. Dr. Almlí believes the possibility exists that in the future additional dilute solution will be infused into a person who has suffered a large loss of blood. This method would replenish the volume lost and also decrease the concentration of the remaining body fluids.

I asked Dr. Almlí about the importance of research in meeting the objectives of the University. He feels that the individual involved in research is going to benefit the student because of the researcher's awareness of current activities in his field. The researcher should be very knowledgeable about recent transactions in his research field. Dr. Almlí is concerned about science teachers who are not involved in some form of research and who glean all their knowledge from textbooks. This knowledge, due to publication lags, could be as much as four to six years old, so that teachers could be imparting knowledge in 1974 that was established in 1968 or 1969.

Ohio University does not have a great deal of money to spend on research but it has been very successful in attracting outside funding. According to the University's director of research Dr. Norman S. Cohn, an active part of every major discipline and department in the University is research. This sounds like a costly operation but the fact is that most of this research is nonfunded which means the faculty members do it on their own. The Ohio University Research Institute processes about 150 research proposals each year to external funding agencies and about one-third of the proposals are funded by these agencies. Nationally only one of ten proposals is funded by the federal government. In each of the years 1972 and 1973 Ohio University acquired more than \$1,000,000 from external research-funding sources. These in-

cluded a variety of federal and state agencies and foundations. Through the Research Committee the University encourages research with \$66,000 budgeted to provide small grants of up to \$3,000 to faculty. This serves as seed money to support worthy projects. If a researcher is successful he often can receive outside money to finish a major effort. Dr. Cohn is encouraged by the growth of research funding received by Ohio University which was 35 percent greater in 1972 than in 1971. He attributes this to high-quality projects, the quality of the faculty proposing the projects and the increased reputation of Ohio University in specialized areas.

How does the director feel research contributes to the goals of the University? Dr. Cohn says such activities help to broaden the perspectives of individual faculty members, enhance the individual's understanding of his field, develop the person professionally and, as a result, make the individual much more effective in the classroom. According to Dr. Cohn, "Individual faculty must be personally involved in their disciplines by doing research in the discipline to be effective as teachers, both at the graduate and the undergraduate levels. Another valuable factor is the stimulation that is provided by the individual to his colleagues as well as to his students through his direct involvement with the discipline in research."

I must admit that after talking with these five research-oriented members of the University community, I was impressed by their dedication to their projects, the quality and potential of the projects involved, the kind of equipment used, the types of projects and the amount of research conducted at Ohio University. As a member of the world community I am glad they are doing what they are doing. As a member of the Ohio University community I am glad they are doing it here.

Very few researchers have either the time or money to produce a major public information effort. As a result, most people will probably continue to be misinformed or confused about the role of research in the university community. Some steps can be, and I believe are being, taken to improve this situation. Perhaps a good start for all of us would be to contact the Ohio University Research Institute for additional information and a list of current funded research projects. Write to The Ohio University Research Institute, Wilson Hall, Athens, Ohio 45701; or telephone (614) 594-5643. Perhaps each of us can discover a project that strikes a responsive chord in him, try to find out more about it and then go so far as to support it. 🐾



*The Ohio University Symphony Orchestra schedule:*

# All-American Music Concert

The Ohio University Symphony Orchestra will perform during the week of March 20-27 in a tour of seven cities in four states. The orchestra will be conducted by Adrian Gnam, who has studied conducting with Pierre Monteux, Erich Kunzel and Max Rudolf. Mr. Gnam has performed as principal oboist in the American Symphony under Leopold Stokowski and the Cleveland Orchestra under George Szell. He has served as a conductor and principal oboist of the Eastern Music Festival, Greensboro, North Carolina, since 1967; and in May, 1973, he was oboe soloist and guest conductor with the Ohio University Wind Ensemble at Kennedy Center, Washington, D.C.

Richard Syracuse, piano soloist on the tour, is a first prizewinner in the Alfred Casella International Piano Competition in Naples, Italy, and a prizewinner in the Queen Elizabeth (Brussels) and Louis Moreau Gottschalk (New Orleans) competitions. He has studied with Rosalyn Tureck and Rosina Lhevinne at the Juilliard School and was a Fulbright Scholar at the St. Cecilia Academy in Rome. He is presently associate professor of piano at Ohio University, where he is a member of the Ohio University Piano Trio and "The Profs" Jazz Quartet. He will perform George Gershwin's "Rhapsody in Blue" with the orchestra.

Guest conductors on the tour will be Ronald P. Socciaelli, director of Ohio University bands; Robert Marcellus, conductor of the Cleveland Philharmonic and principal clarinetist of the Cleveland Orchestra; Gunther Schul-

Wednesday, March 20, 8 p.m.  
Rochester Institute of Technology, Rochester, New York  
Thursday, March 21, 8 p.m.  
Wheelock College, Boston, Massachusetts  
Saturday, March 23, 2:30 p.m.  
Avery Fisher (Philharmonic Hall), New York City  
Sunday, March 24, 8 p.m.  
Ford Hall, Ithaca College, Ithaca, New York  
Monday, March 25, 8 p.m.  
Peristyle (Art Museum), Toledo, Ohio  
Tuesday, March 26, 8 p.m.  
Severance Hall, Cleveland, Ohio  
Wednesday, March 27, 8 p.m.  
Heinz Hall, Pittsburgh, Pennsylvania

ler, composer, conductor and president of New England Conservatory of Music; Paul Bendza, assistant conductor of the Ohio University Symphony Orchestra, and Michael Semanitzky, assistant conductor of the Pittsburgh Symphony.

Appropriate to this period preceding America's bicentennial, the tour is designed to promote music of American composers. It is intended to provide audiences with the opportunity to hear and appreciate the merits of American music, the various styles of which will be represented.

Especially significant is the inclusion of works by three composers who have musical backgrounds in Ohio. Gunther Schuller, in 1943 at the age of 17, became principal horn player of the Cincinnati Symphony Orchestra.

Hale Smith is a leading black composer who received his training at the Cleveland Institute of Music and whose career in recent years has been directed toward the playing and writing of jazz. Karl Ahrendt, who was born in Toledo, studied at the Cincinnati Conservatory and played in the Cincinnati Symphony Orchestra. Dr. Ahrendt is former director of the Ohio University School of Music, where he currently occupies the position of Distinguished Professor of Composition. His work *Montage for Orchestra* was awarded first prize in the 1973 National School Orchestra Association-Roth Orchestra Composition Contest. The present tour will mark the first performances of this work, written especially for the Ohio University Symphony Orchestra. It is expected that the composition will find a prominent place in the repertoire of high school and college orchestras.









